

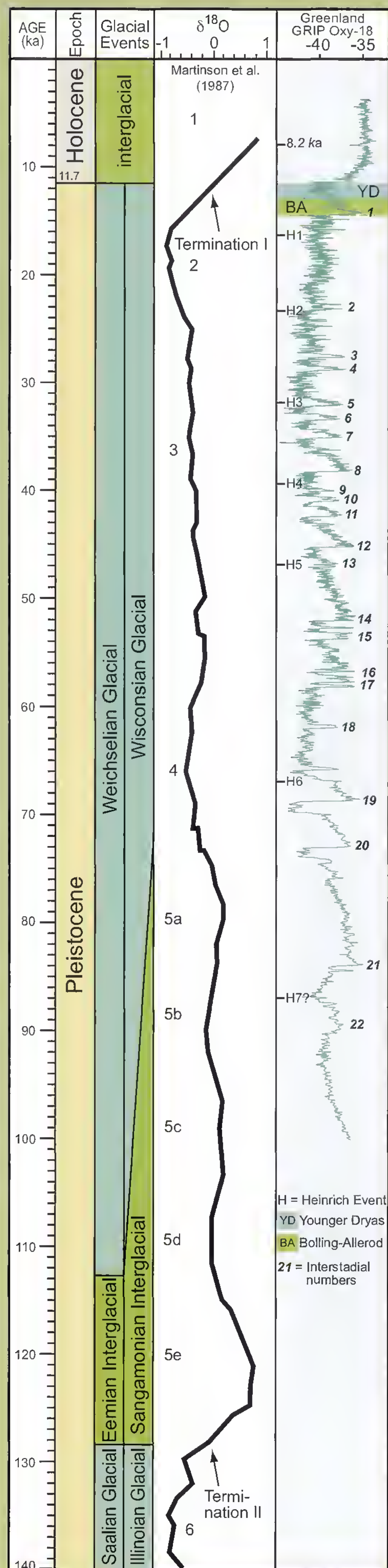


Geologic Time Scale 2008

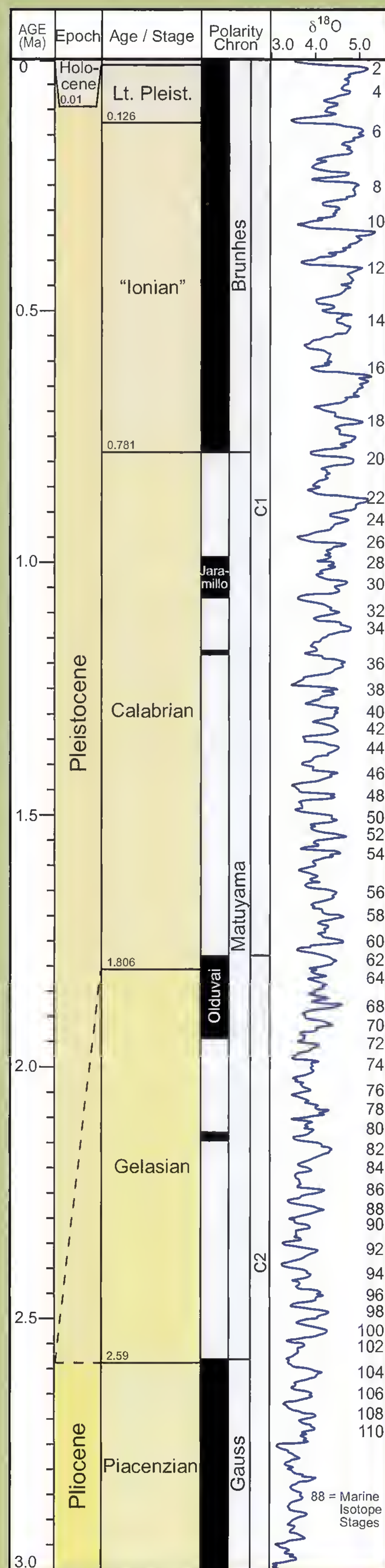


PHANEROZOIC

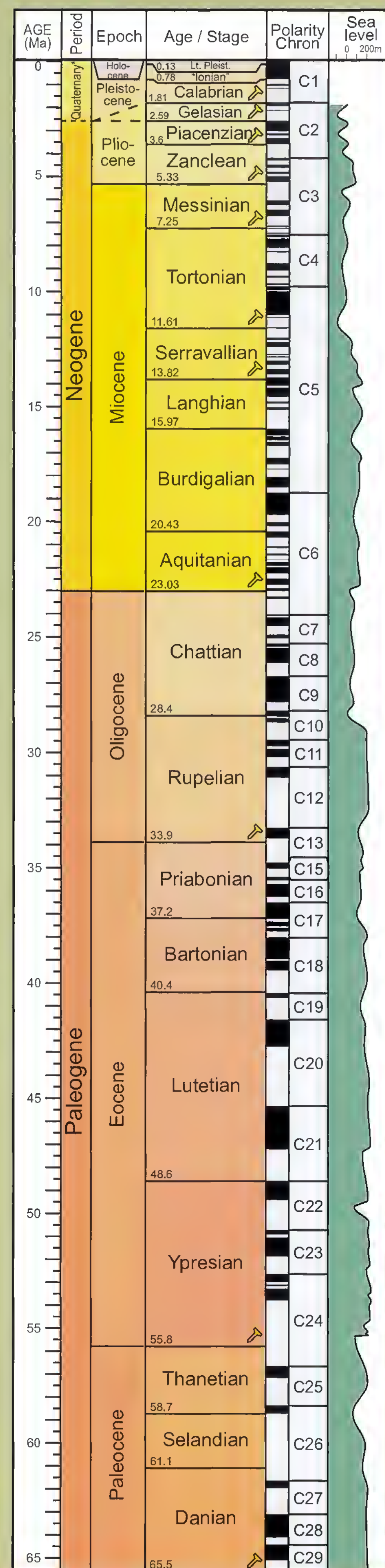
LAST GLACIAL CYCLE



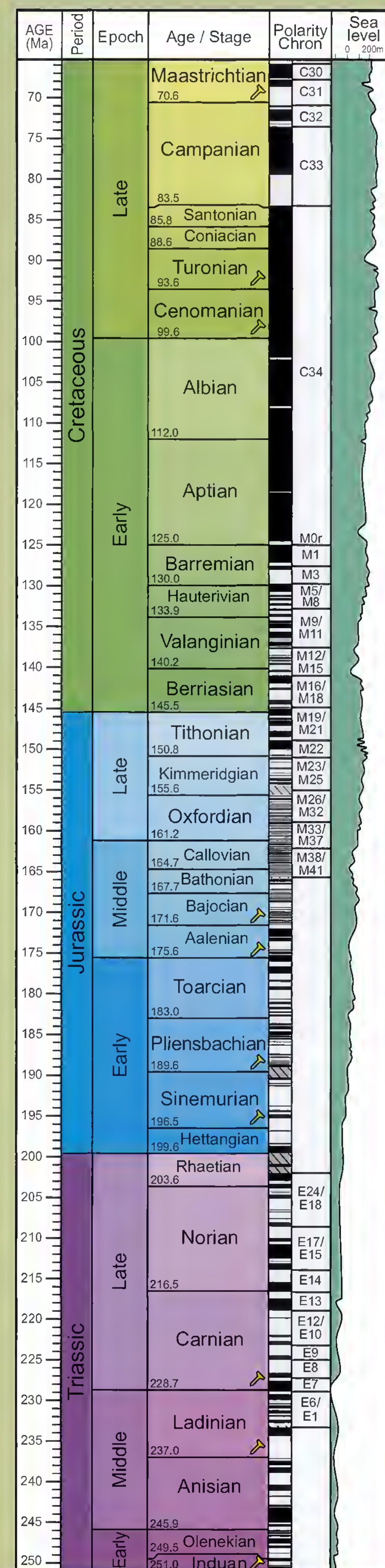
QUATERNARY



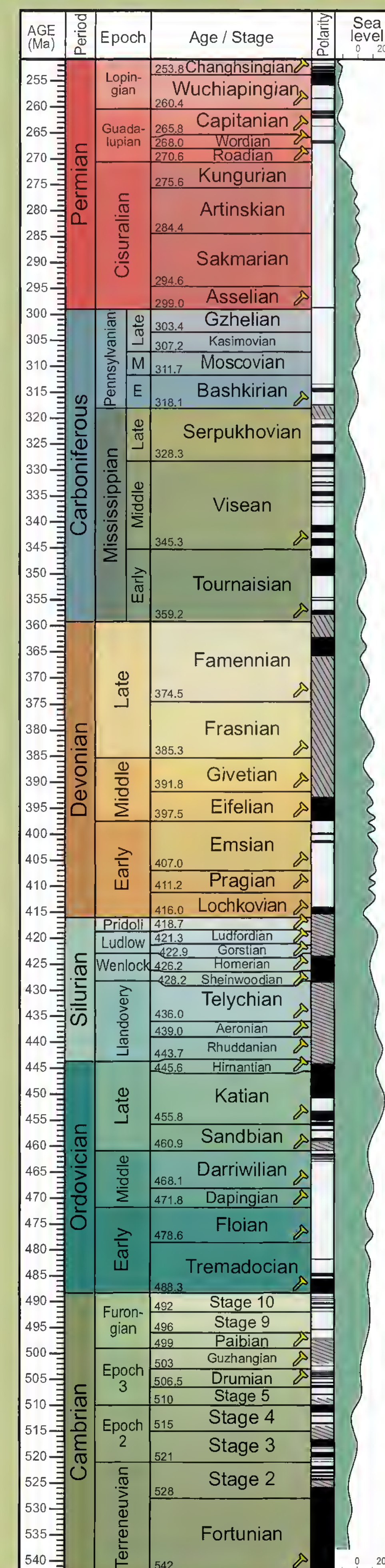
CENOZOIC



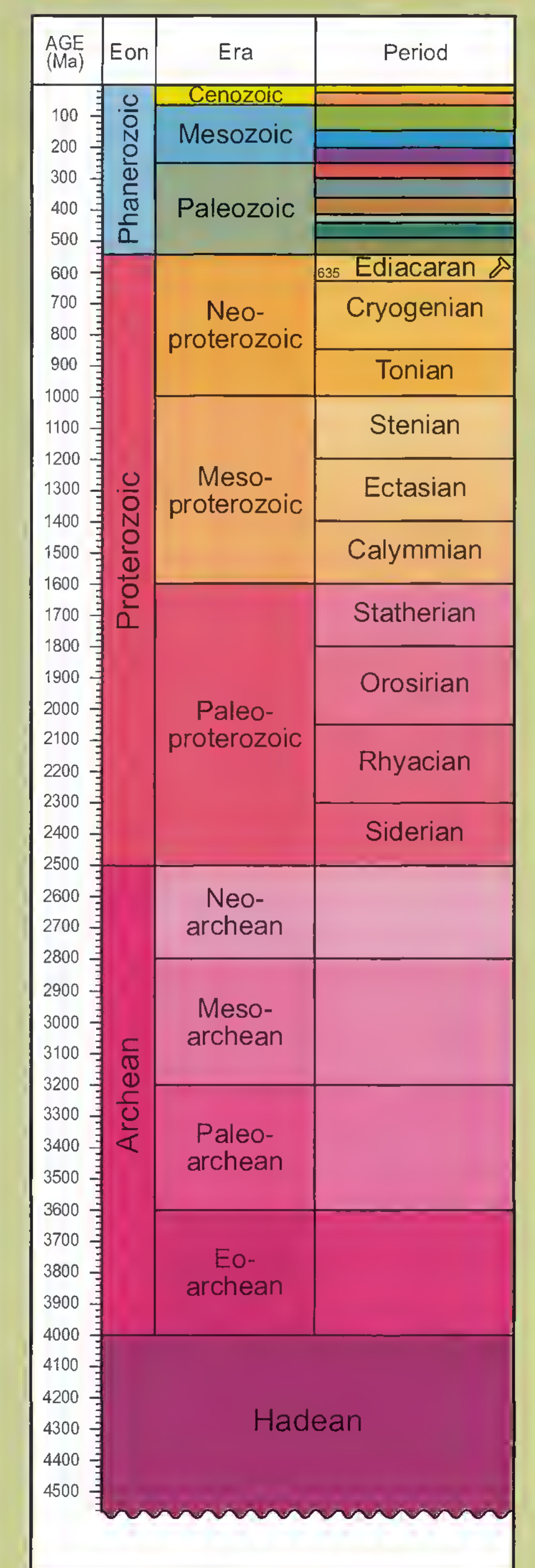
MESOZOIC



PALEOZOIC



PHANEROZOIC & PRECAMBRIAN



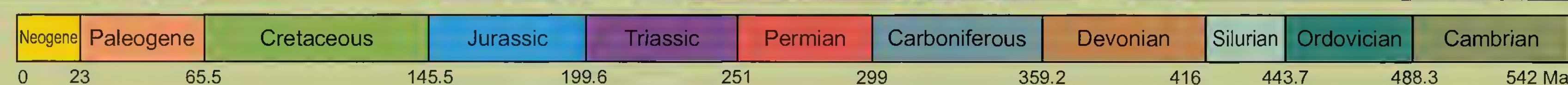
Legend:

- Normal polarity
- Reversed polarity
- Uncertain polarity
- ratified GSSP

For details see:
"A Geologic Time Scale 2004" by F. M. Gradstein, J. G. Ogg, A. G. Smith, et al. (2004) with Cambridge University Press, and "The Concise Geologic Time Scale" by J. G. Ogg, G. Ogg and F. M. Gradstein (2008), and the website of the International Commission on Stratigraphy (ICS) www.stratigraphy.org.

This chart was produced by Gabi Ogg using TimeScale Creator software:
<http://www.tsccreator.com>

* Definition of the Quaternary and revision of the Pleistocene are under discussion. Base of the Pleistocene is at 1.81 Ma (base of Calabrian), but may be extended to 2.59 Ma (base of Gelasian) as defined by the International Union for Quaternary Research (INQUA). The historic "Tertiary" comprises the Paleogene and Neogene, and has no official rank.



Color Codes according to the
COMMISSION FOR THE GEOLOGICAL MAP OF THE WORLD (CGMW)

CMYK COLOR CODE

Phanerozoic (40/0/5/0)	Cenozoic (5/0/90/0)	Holocene (0/5/10/0)	(0/5/5/0)
		Upper (0/5/15/0)	
		Pleistocene (0/5/30/0)	
		Middle (0/5/20/0)	
		Lower (0/5/25/0)	
		Gelasian (0/0/20/0)	
		Pliocene (0/0/40/0)	
		Placenzian (0/0/25/0)	
		Zanclean (0/0/30/0)	
		Messinian (0/0/55/0)	
		Tortonian (0/0/60/0)	
		Serravallian (0/0/65/0)	
	Neogene (0/10/90/0)	Langhian (0/0/70/0)	
		Burdigalian (0/0/75/0)	
		Aquitanian (0/0/80/0)	
		Oligocene (0/25/45/0)	
		Rupelian (0/15/35/0)	
		Priabonian (0/20/30/0)	
		Eocene (0/30/50/0)	
		Bartonian (0/25/35/0)	
		Lutetian (0/30/40/0)	
		Ypresian (0/35/45/0)	
		Thanetian (0/25/50/0)	
		Selandian (0/25/55/0)	
Mesozoic (60/0/10/0)	Paleogene (0/40/60/0)	Danian (0/30/55/0)	
		Maastrichtian (5/0/45/0)	
		Campanian (10/0/50/0)	
		Santonian (15/0/55/0)	
		Coniacian (20/0/60/0)	
		Turonian (25/0/65/0)	
		Cenomanian (30/0/70/0)	
		Albian (20/0/40/0)	
		Aptian (25/0/45/0)	
		Barremian (30/0/50/0)	
		Hauterivian (35/0/55/0)	
		Valanginian (40/0/60/0)	
		Berriasian (45/0/65/0)	
	Cretaceous (50/0/75/0)	Upper (35/0/75/0)	
		Santonian (15/0/55/0)	
		Coniacian (20/0/60/0)	
		Turonian (25/0/65/0)	
		Cenomanian (30/0/70/0)	
		Albian (20/0/40/0)	
		Aptian (25/0/45/0)	
		Barremian (30/0/50/0)	
		Hauterivian (35/0/55/0)	
		Valanginian (40/0/60/0)	
		Berriasian (45/0/65/0)	
		Lower (45/0/70/0)	

Phanerozoic (40/0/5/0)	Mesozoic (60/0/10/0)	Upper (30/0/0/0)	Tithonian (15/0/0/0)
		Kimmeridgian (20/0/0/0)	
		Oxfordian (25/0/0/0)	
		Callovian (25/0/5/0)	
		Bathonian (30/0/5/0)	
		Bajocian (35/0/5/0)	
		Aalenian (40/0/5/0)	
		Toarcian (40/5/0/0)	
		Plensbachian (50/5/0/0)	
		Sinemurian (60/5/0/0)	
		Hettangian (70/5/0/0)	
		Rhaetian (10/25/0/0)	
	Triassic (50/80/0/0)	Norian (15/30/0/0)	
		Carnian (20/35/0/0)	
		Ladinian (20/45/0/0)	
		Anisian (25/50/0/0)	
		Olenekian (30/65/0/0)	
		Induan (35/70/0/0)	
		Changhsingian (0/25/20/0)	
		Wuchiapingian (0/30/25/0)	
		Capitanian (0/40/35/0)	
		Wordian (0/45/40/0)	
		Roadian (0/50/45/0)	
		Kungurian (10/45/40/0)	
Paleozoic (40/10/40/0)	Permian (5/75/75/0)	Artinskian (10/50/45/0)	
		Sakmarian (10/55/50/0)	
		Asselian (10/60/55/0)	
		Gzhelian (20/10/15/0)	
		Kasimovian (25/10/15/0)	
		Moscovian (30/10/20/0)	
		Bashkirian (40/10/20/0)	
		Serpukhovian (25/15/55/0)	
		Visean (35/15/55/0)	
		Tournaisian (45/15/55/0)	
		Lower (50/15/55/0)	
		Middle (40/15/55/0)	
	Carboniferous (60/15/30/0)	Upper (25/10/20/0)	
		Middle (35/10/20/0)	
		Lower (45/10/20/0)	
		Upper (30/15/55/0)	
		Middle (40/15/55/0)	
		Lower (50/15/55/0)	
		Upper (30/15/55/0)	
		Middle (40/15/55/0)	
		Lower (50/15/55/0)	
		Upper (30/15/55/0)	
		Middle (40/15/55/0)	
		Lower (50/15/55/0)	

Phanerozoic (40/0/5/0)	Paleozoic (40/10/40/0)	Upper (5/10/35/0)	Famennian (5/5/20/0)
		Frasnian (5/5/30/0)	
		Middle (5/20/55/0)	Givetian (5/10/45/0)
		Eifelian (5/15/50/0)	
		Emsian (10/15/50/0)	
		Pragian (10/20/55/0)	
		Lochkovian (10/25/60/0)	
		Pridoli (10/0/10/0)	
		Ludlow (25/0/15/0)	
		Wenlock (30/0/20/0)	
		Llandovery (40/0/25/0)	
		Upper (50/0/40/0)	Katian (40/0/35/0)
	Silurian (30/0/25/0)	Sandbian (45/0/40/0)	
		Darriwilian (55/0/35/0)	
		Dapingian (60/0/40/0)	
		Floian (75/0/45/0)	
		Tremadocian (80/0/50/0)	
		Stage 10 (10/0/20/0)	
		Stage 9 (15/0/25/0)	
		Paibian (20/0/30/0)	
		Guzhangian (20/5/30/0)	
		Drumian (25/5/35/0)	
		Stage 5 (30/5/40/0)	
		Stage 4 (30/10/40/0)	
Phanerozoic (40/0/5/0)	Paleozoic (40/10/40/0)	Stage 3 (35/10/45/0)	
		Stage 2 (35/15/45/0)	
		Fortunian (40/15/50/0)	
		Terreneuvian (45/15/55/0)	
		Series 2 (40/10/50/0)	
		Stage 3 (35/10/45/0)	
		Stage 4 (30/10/40/0)	
		Stage 5 (30/5/40/0)	
		Drumian (25/5/35/0)	
		Guzhangian (20/5/30/0)	
		Paibian (20/0/30/0)	
		Stage 9 (15/0/25/0)	
	Cambrian (50/20/65/0)	Furongian (30/0/40/0)	
		Series 3 (35/5/45/0)	
		Stage 10 (10/0/20/0)	
		Stage 9 (15/0/25/0)	
		Stage 8 (20/0/30/0)	
		Stage 7 (25/0/35/0)	
		Stage 6 (30/0/40/0)	
		Stage 5 (30/5/40/0)	
		Stage 4 (30/10/40/0)	
		Stage 3 (35/10/45/0)	
		Stage 2 (35/15/45/0)	
		Fortunian (40/15/50/0)	

Phanerozoic (40/0/5/0)	Paleozoic (40/10/40/0)	Upper (5/10/35/0)	Famennian (5/5/20/0)
		Frasnian (5/5/30/0)	
		Middle (5/20/55/0)	Givetian (5/10/45/0)
		Eifelian (5/15/50/0)	
		Emsian (10/15/50/0)	
		Pragian (10/20/55/0)	
		Lochkovian (10/25/60/0)	
		Pridoli (10/0/10/0)	
		Ludlow (25/0/15/0)	
		Wenlock (30/0/20/0)	
		Llandovery (40/0/25/0)	
		Upper (50/0/40/0)	Katian (40/0/35/0)
	Silurian (30/0/25/0)	Sandbian (45/0/40/0)	
		Darriwilian (55/0/35/0)	
		Dapingian (60/0/40/0)	
		Floian (75/0/45/0)	
		Tremadocian (80/0/50/0)	
		Stage 10 (10/0/20/0)	
		Stage 9 (15/0/25/0)	
		Stage 8 (20/0/30/0)	
		Stage 7 (25/0/35/0)	
		Stage 6 (30/0/40/0)	
		Stage 5 (30/5/40/0)	
		Stage 4 (30/10/40/0)	
Phanerozoic (40/0/5/0)	Paleozoic (40/10/40/0)	Stage 3 (35/10/45/0)	
		Stage 2 (35/15/45/0)	
		Fortunian (40/15/50/0)	
		Terreneuvian (45/15/55/0)	
		Series 2 (40/10/50/0)	
		Stage 3 (35/10/45/0)	
		Stage 4 (30/10/40/0)	
		Stage 5 (30/5/40/0)	
		Drumian (25/5/35/0)	
		Guzhangian (20/5/30/0)	
		Paibian (20/0/30/0)	
		Stage 9 (15/0/25/0)	
	Cambrian (50/20/65/0)	Furongian (30/0/40/0)	
		Series 3 (35/5/45/0)	
		Stage 10 (10/0/20/0)	
		Stage 9 (15/0/25/0)	
		Stage 8 (20/0/30/0)	
		Stage 7 (25/0/35/0)	
		Stage 6 (30/0/40/0)	
		Stage 5 (30/5/40/0)	
		Stage 4 (30/10/40/0)	
		Stage 3 (35/10/45/0)	
		Stage 2 (35/15/45/0)	
		Fortunian (40/15/50/0)	

Explanation:

The CMYK color code is an additive model with percentages of Cyan, Magenta, Yellow and Black. For example: the CMYK color for Devonian (20/40/75/0) is a mixture of 20% Cyan, 40% Magenta, 75% Yellow and 0% Black.

* Definition of the Quaternary and revision of the Pleistocene are under discussion. Base of the Pleistocene is at 1.81 Ma (base of Calabrian), but may be extended to 2.59 Ma (base of Gelasian). The historic "Tertiary" comprises the Paleogene and Neogene, and has no official rank.

RGB COLOR CODE

Phanerozoic (40/0/5/0)	Cenozoic (5/0/90/0)	Holocene (0/5/10/0)	254/242/236
		Upper (0/5/15/0)	255/242/211
		Pleistocene (0/5/30/0)	255/242/174
		Middle (0/5/20/0)	255/242/199
		Lower (0/5/25/0)	255/242/186
		Gelasian (0/0/20/0)	255/255/204
		Pliocene (0/0/40/0)	255/255/191
		Placenzian (0/0/25/0)	255/255/179
		Zanclean (0/0/30/0)	255/255/115
		Messinian (0/0/55/0)	255/255/102
		Tortonian (0/0/60/0)	255/255/89
		Serravallian (0/0/65/0)	255/255/77
	Neogene (0/10/90/0)	Langhian (0/0/70/0)	255/255/65
		Burdigalian (0/0/75/0)	255/255/51
		Aquitanian (0/0/80/0)	255/255/51
		Oligocene (0/25/45/0)	253/192/122
		Rupelian (0/15/35/0)	254/217/154
		Priabonian (0/20/30/0)	253/205/161
		Eocene (0/30/50/0)	253/192/145
		Lutetian (0/30/40/0)	252/180/130
		Ypresian (0/35/45/0)	252/167/115
		Thanetian (0/25/50/0)	253/191/111
		Selandian (0/25/55/0)	254/191/101
		Danian (0/30/55/0)	253/180/98
Mesozoic (60/0/10/0)	Paleogene (0/40/60/0)	Maastrichtian (5/0/45/0)	242/250/140
		Campanian (10/0/50/0)	230/244/127
		Santonian (15/0/55/0)	217/239/116
		Coniacian (20/0/60/0)	204/233/104
		Turonian (25/0/65/0)	191/227/93
		Cenomanian (30/0/70/0)	179/222/83
		Albian (20/0/40/0)	204/234/151
		Aptian (25/0/45/0)	191/228/138
		Barremian (30/0/50/0)	179/223/127
		Hauterivian (35/0/55/0)	166/217/117
		Valanginian (40/0/60/0)	153/211/106
		Berriasian (45/0/65/0)	140/205/96
	Cretaceous (50/0/75/0)	Upper (35/0/75/0)	166/216/74
		Santonian (15/0/55/0)	217/239/116
		Coniacian (20/0/60/0)	204/233/104
		Turonian (25/0/65/0)	191/227/93
		Cenomanian (30/0/70/0)	179/222/83
		Albian (20/0/40/0)	204/234/151
		Aptian (25/0/45/0)	191/228/138
		Barremian (30/0/50/0)	179/223/127
		Hauterivian (35/0/55/0)	166/217/117
		Valanginian (40/0/60/0)	153/211/106
		Berriasian (45/0/65/0)	140/205/96
		Lower (45/0/70/0)	140/205/87

Phanerozoic 154/217/221			Mesozoic 103/197/202		Paleozoic 153/192/141	
Jurassic 52/178/201		Triassic 129/43/146		Permian 240/64/40		
Upper 179/227/238		Upper 189/140/195		Lopingian 251/167/148		
Middle 128/207/216		Middle 177/104/177		Guadalupian 251/116/92		
Lower 66/174/208		Lower 152/57/153		Cisuralian 239/88/69		